Defense against Thermobaric Weapons

Purpose: To use the Project Albert array of distillation models and data farming techniques in an attempt to improve techniques, tactics, and procedures for defense against thermobaric weapons in an urban combat environment.

RPG-7V1 grenade launcher with PG-7VR, TBG-7V and

Background: Thermobaric (heat and pressure) weapons were first developed by Russia in the late 1970's. Such weapons contain an explosive warhead that explodes with an intense fireball and over-pressure shockwave. The thermobaric warhead can be delivered by aircraft, artillery, or as a hand held infantry weapon. As demonstrated in the second battle of Chechnya, the thermobaric weapon gives infantry units, even rebel units that may be minimally trained, a weapon that is quite capable of killing enemy forces in close quarters or exposed in trenches more effectively than using standard direct or indirect fires. Project Albert, working in concert with the Marine Corps Warfighting Laboratory's Center for Emerging Threats and Opportunities (CETO), is developing those means to minimize this threat and accomplish the above stated purpose.

Description: Project Albert will conduct a series of workshops in collaboration with other US defense agencies and allied countries. Utilizing a basic defensive scenario developed by CETO, Project Albert will employ current technology for agent-based simulations and try to replicate human interaction and reaction in varying levels of tactical defensive operations in urban combat. With available computing capabilities, Project Albert intends to visually represent the degrees of lethality of weapons, defensive tactics, techniques, procedures and human characteristics. On advice and recommendations from CETO, a determination will be made whether or not the Project Albert array of distillation models can be a relevant capability in answering the above stated purpose.

Deliverable Products: Deliverables include recommendations on the viability of Project Albert tools in supporting the development of defensive tactics, techniques and procedures and technologies in the area of thermobaric weapons and, if viable, a plan to work on providing DOTMLPF recommendations.

Milestones:

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